

CONFIDENTIAL DRAFT

2035 Annual Results	A. Revitalization, Infill, and Transit Corridors within SOI		B. Growth Area Development and Infill within SOI		C. Trend, Expands to SOI		D. Hybrid of A, B, and C		E. BIA Scenario		ASSUMPTIONS	Rapid Fire calculated baseline
	Result	Diff from Alt C	Result	Diff from Alt C	Result	Diff from Alt C	Result	Diff from Alt C	Result	Diff from Alt C		
	SCENARIO	A	B	C	D	E						
	End-State Total Population, 2035	734,533	734,533	734,533	734,533	734,533						2005
	End-State Total Households, 2035	239,763	239,763	239,763	239,763	239,763						Baseline
	Total Greenhouse Gas (GHG) Emissions											454,736
	Total Emissions (Transportation Combustion and Buildings) (MMT)	2.17 MMT	-8%	2.22 MMT	-6%	2.36 MMT	0%	2.23 MMT	-6%	2.41 MMT	2%	147,945
	ICE Fuel Combustion Emissions (MMT)	0.96 MMT	-15%	1.01 MMT	-9%	1.12 MMT	0%	1.01 MMT	-10%	1.13 MMT	1%	2.4 MMT
	Building Emissions (Residential and Commercial)	1.21 MMT	-2%	1.21 MMT	-2%	1.24 MMT	0%	1.22 MMT	-2%	1.28 MMT	3%	1.1 MMT
	Household Costs											1.3 MMT
	Fuel and auto, energy, and water costs (2011\$)	\$11,520	-11%	\$11,997	-8%	\$13,002	0%	\$12,007	-8%	\$13,143	1%	
	Household fuel and auto costs (2011\$)	\$8,132	-15%	\$8,614	-9%	\$9,513	0%	\$8,570	-10%	\$9,607	1%	
	Household energy and water costs (2011\$)	\$3,387	-3%	\$3,383	-3%	\$3,489	0%	\$3,437	-1%	\$3,536	1%	
	Land Consumption											
	Greenfield Land Consumed, Gross (sq mi)	21.7 sq mi	-31%	25.1 sq mi	-21%	31.7 sq mi	0%	25.7 sq mi	-19%	34.2 sq mi	8%	
	Greenfield Land Consumed, Gross (ac)	13,909 ac	-31%	16,055 ac	-21%	20,263 ac	0%	16,435 ac	-19%	21,860 ac	8%	
	Transportation											
	VMT (miles)	3.01 B mi	-15%	3.19 B mi	-9%	3.52 B mi	0%	3.17 B mi	-10%	3.56 B mi	1%	2.3 B mi
	VMT per HH	12,562 mi	-15%	13,306 mi	-9%	14,695 mi	0%	13,238 mi	-10%	14,840 mi	1%	15,498 mi
	VMT per Capita	4,100 mi	-15%	4,343 mi	-9%	4,797 mi	0%	4,321 mi	-10%	4,844 mi	1%	5,042 mi
Fuel Consumed (gal)	121.7 M gal	-15%	128.9 M gal	-9%	142.4 M gal	0%	128.3 M gal	-10%	143.8 M gal	1%	0.1 B gal	
Fuel Cost (2011\$)	\$0.97 B	-15%	\$1.03 B	-9%	\$1.14 B	0%	\$1.03 B	-10%	\$1.15 B	1%		
Auto Ownership, Maintenance, and Additional Costs (2011\$)	\$0.98 B	-15%	\$1.03 B	-9%	\$1.14 B	0%	\$1.03 B	-10%	\$1.15 B	1%		
ICE Fuel Combustion Emissions (MMT)	0.96 MMT	-15%	1.01 MMT	-9%	1.12 MMT	0%	1.01 MMT	-10%	1.13 MMT	1%		
ICE Fuel Combustion Emissions per Capita (lbs)	2,871 lbs	-15%	3,041 lbs	-9%	3,358 lbs	0%	3,025 lbs	-10%	3,392 lbs	1%		
Criteria Pollutant Emissions (tons)	3,717 tons	-15%	3,937 tons	-9%	4,347 tons	0%	3,917 tons	-10%	4,391 tons	1%		
Public Health												
Annual Health Incidences	5,090	-15%	5,391	-9%	5,954	0%	5,364	-10%	6,013	1%	1 MMT	
Annual Health Costs (2011\$)	\$81,251,611	-15%	\$86,051,987	-9%	\$95,044,721	0%	\$85,624,000	-10%	\$95,988,034	1%	5,120 lbs	
Building Energy											87,578 tons	
Residential Electricity Consumed (kWh)	1,578 GWh	-3%	1,576 GWh	-3%	1,633 GWh	0%	1,605 GWh	-2%	1,658 GWh	2%		
Residential Natural Gas Consumed (therms)	83,402,521 thm	-2%	83,354,420 thm	-2%	84,683,320 thm	0%	84,044,368 thm	-1%	85,279,833 thm	1%		
Residential Energy Consumed (Btu)	13.7 tril Btu	-2%	13.7 tril Btu	-2%	14.0 tril Btu	0%	13.9 tril Btu	-1%	14.2 tril Btu	1%		
Commercial Energy Consumed (Btu)	7.8 tril Btu	-3%	7.9 tril Btu	-3%	8.1 tril Btu	0%	7.8 tril Btu	-3%	8.1 tril Btu	0%		
Total Energy Consumed (Btu)	21.6 tril Btu	-2%	21.6 tril Btu	-2%	22.1 tril Btu	0%	21.7 tril Btu	-2%	22.3 tril Btu	1%		
Residential Building Emissions (MMT)	0.76 MMT	-2%	0.76 MMT	-2%	0.78 MMT	0%	0.77 MMT	-1%	0.79 MMT	1%		
Commercial Building Emissions (MMT)	0.45 MMT	-3%	0.45 MMT	-3%	0.46 MMT	0%	0.45 MMT	-3%	0.46 MMT	0%		
Residential Electricity per HH (kWh)	6,583 kWh	-3%	6,573 kWh	-3%	6,809 kWh	0%	6,693 kWh	-2%	6,915 kWh	2%		
Residential Natural Gas per HH (therms)	348 thm	-2%	348 thm	-2%	353 thm	0%	351 thm	-1%	356 thm	1%		
Residential Energy Use per HH (Btu)	90.0 mil Btu	-2%	90.0 mil Btu	-2%	92.2 mil Btu	0%	90.6 mil Btu	-2%	92.8 mil Btu	1%		
Residential Energy Cost (\$)	\$678 mil	-3%	\$677 mil	-3%	\$698 mil	0%	\$688 mil	-2%	\$708 mil	1%		
Residential Energy Cost per HH (\$)	\$2,826	-3%	\$2,822	-3%	\$2,913	0%	\$2,868	-2%	\$2,954	1%		
Water												
Water Consumed (AF)	93,261 AF	-3%	93,501 AF	-3%	96,249 AF	0%	94,912 AF	-1%	97,484 AF	1%		
Water Cost (\$)	\$135 mil	-3%	\$135 mil	-3%	\$138 mil	0%	\$136 mil	-1%	\$140 mil	1%		
Water Consumed per HH (gal)	126,747 gal	-3%	127,074 gal	-3%	130,808 gal	0%	128,991 gal	-1%	132,486 gal	1%		
Residential Water Cost per HH (\$)	\$562	-3%	\$561	-3%	\$576	0%	\$569	-1%	\$583	1%		
Water Consumed for new households only (AF)	29,127 AF	-9%	29,367 AF	-9%	32,115 AF	0%	30,778 AF	-4%	33,349 AF	4%		
Water use per new HH (gal)	103,367 gal	-9%	104,221 gal	-9%	113,971 gal	0%	109,227 gal	-4%	118,353 gal	4%		
Water cost per for new HH (2011\$)	\$38,437,223	-8%	\$38,306,989	-9%	\$41,890,831	0%	\$40,146,823	-4%	\$43,501,350	4%		
Water cost per new HH (2011\$)	\$419	-8%	\$417	-9%	\$456	0%	\$437	-4%	\$474	4%		
Infrastructure (Cumulative results to 2035)												
Cumulative Infrastructure Cost (2011\$)	\$1.27 B	-10%	\$1.33 B	-6%	\$1.41 B	0%	\$1.35 B	-4%	\$1.38 B	-2%		
Cumulative Operations & Maintenance Cost (2011\$)	\$0.30 B	-6%	\$0.31 B	-5%	\$0.32 B	0%	\$0.31 B	-3%	\$0.32 B	-2%		
Cumulative Revenues (2011\$)	\$4.62 B	2%	\$4.48 B	-1%	\$4.51 B		\$4.60 B	2%	\$4.34 B	-4%		

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5-Apr-12	2035 Annual Results	A. Revitalization, Infill, and Transit Corridors within SOI		B. Growth Area Development and Infill within SOI		C. Trend, Expands to SOI		D. Hybrid of A, B, and C		E. BIA Scenario			EQUIVALENCIES Alt A compared to Alt C			EQUIVALENCIES Alt A compared to Alt E				
		Result	Diff from Alt C	Result	Diff from Alt C	Result	Diff from Alt C	Result	Diff from Alt C	Result	Diff from Alt A	Diff from Alt C	(Same assumptions used for all scenarios)		(Same assumptions used for all scenarios)					
		SCENARIO		A	B	C		D		E										
		End-State Total Population, 2035		734,533	734,533	734,533		734,533		734,533										
		End-State Total Households, 2035		239,763	239,763	239,763		239,763		239,763										
		Total Greenhouse Gas (GHG) Emissions											GREENHOUSE GAS EMISSIONS			GREENHOUSE GAS EMISSIONS				
		Total Emissions (Transportation Combustion and Buildings) (MMT)		2.17 MMT	-0.19 MMT	2.22 MMT	-0.14 MMT	2.36 MMT	0.00 MMT	2.23 MMT	-0.13 MMT	2.41 MMT	0.24 MMT	0.05 MMT	Reduces total annual GHGs by the same amount sequestered by 78,000 acres of trees -- or 5 million tree seedlings grown for 10 years.			Reduces total annual GHGs by the same amount sequestered by 98,000 acres of trees -- or 6.2 million tree seedlings grown for 10 years.		
		ICE Fuel Combustion Emissions (MMT)		0.96 MMT	-0.16 MMT	1.01 MMT	-0.11 MMT	1.12 MMT	0.00 MMT	1.01 MMT	-0.11 MMT	1.13 MMT	0.17 MMT	0.01 MMT						
		Building Emissions (Residential and Commercial)		1.21 MMT	-0.03 MMT	1.21 MMT	-0.03 MMT	1.24 MMT	0.00 MMT	1.22 MMT	-0.02 MMT	1.28 MMT	0.07 MMT	0.04 MMT						
		Household Costs													HOUSEHOLD COSTS			HOUSEHOLD COSTS		
		Fuel and auto, energy, and water costs (2011\$)		\$11,520	-\$1,482	\$11,997	-\$1,005	\$13,002	\$0	\$12,007	-\$995	\$13,143	\$1,624	\$142	\$1,480 savings per household, per year in auto and utility costs.			\$1,620 savings per household, per year in auto and utility costs.		
		Household fuel and auto costs (2011\$)		\$8,132	-\$1,381	\$8,614	-\$899	\$9,513	\$0	\$8,570	-\$943	\$9,607	\$1,475	\$94						
		Household energy and water costs (2011\$)		\$3,387	-\$102	\$3,383	-\$106	\$3,489	\$0	\$3,437	-\$52	\$3,536	\$149	\$47						
		Land Consumption													LAND CONSUMPTION			LAND CONSUMPTION		
		Greenfield Land Consumed, Gross (sq mi)		21.7 sq mi	-9.9 sq mi	25.1 sq mi	-6.6 sq mi	31.7 sq mi	0 sq mi	25.7 sq mi	-6.0 sq mi	34.2 sq mi	12.4 sq mi	2.5 sq mi	Nearly 10 square miles of land saved.			12.4 square miles of land saved.		
		Greenfield Land Consumed, Gross (ac)		13,909 ac	-6,354 ac	16,055 ac	-4,207 ac	20,263 ac	ac	16,435 ac	-3,828 ac	21,860 ac	7,951 ac	1,597 ac						
		Transportation													TRANSPORTATION			TRANSPORTATION		
		VMT (miles)		3.01 B mi	-0.51 B mi	3.19 B mi	-0.33 B mi	3.52 B mi	0.00 B mi	3.17 B mi	-0.35 B mi	3.56 B mi	0.55 B mi	0.03 B mi	Over 40,000 cars off Fresno's roads.			Nearly 44,000 cars off Fresno's roads.		
		VMT per HH		12,562 mi	-2,133 mi	13,306 mi	-1,389 mi	14,695 mi	mi	13,238 mi	-1,457 mi	14,840 mi	2,278 mi	146 mi						
		VMT per Capita		4,100 mi	-696 mi	4,343 mi	-453 mi	4,797 mi	mi	4,321 mi	-475 mi	4,844 mi	744 mi	48 mi						
Fuel Consumed (gal)		121.7 M gal	-20.7 M gal	128.9 M gal	-13.5 M gal	142.4 M gal	0.0 M gal	128.3 M gal	-14.1 M gal	143.8 M gal	22.1 M gal	1.4 M gal	21 million gallons less fuel consumed in 2035 -- over 2,400 tanker trucks' worth of gas, or over a million barrels of oil.			22 million gallons less fuel consumed in 2035 -- nearly 2,600 tanker trucks' worth of gas, or over 1.1 million barrels of oil.				
Fuel Cost (2011\$)		\$0.97 B	-\$165 M	\$1.03 B	-\$108 M	\$1.14 B	\$0.01 B	\$1.03 B	-\$113 M	\$1.15 B	\$177 M	\$11 M								
Auto Ownership, Maintenance, and Additional Costs (2011\$)		\$0.98 B	-\$166 M	\$1.03 B	-\$108 M	\$1.14 B	\$0.01 B	\$1.03 B	-\$113 M	\$1.15 B	\$177 M	\$11 M								
ICE Fuel Combustion Emissions (MMT)		0.96 MMT	-0.16 MMT	1.01 MMT	-0.11 MMT	1.12 MMT	0.00 MMT	1.01 MMT	-0.11 MMT	1.13 MMT	0.17 MMT	0.01 MMT								
ICE Fuel Combustion Emissions per Capita (lbs)		2,871 lbs	-487 lbs	3,041 lbs	-317 lbs	3,358 lbs	0 lbs	3,025 lbs	-333 lbs	3,392 lbs	521 lbs	33 lbs								
Criteria Pollutant Emissions (tons)		3,717 tons	-631 tons	3,937 tons	-411 tons	4,347 tons	tons	3,917 tons	-431 tons	4,391 tons	674 tons	43 tons								
Public Health													HEALTH IMPACTS			HEALTH IMPACTS				
Annual Health Incidences		3,630	-864	3,331	-563	3,721	0	3,364	-590	3,013	923	59	\$13.8 million less in healthcare spending for air pollution-related illnesses in 2035.			\$14.7 million less in healthcare spending for air pollution-related illnesses in 2035.				
Annual Health Costs (2011\$)		\$81,252,611	-\$13,793,110	\$98,061,387	-\$8,982,734	\$99,541,721	\$0	\$85,624,000	-\$9,420,721	\$95,968,034	\$14,736,423	\$943,313								
Building Energy													ENERGY			ENERGY				
Residential Electricity Consumed (kWh)		1,578 GWh	-54 GWh	1,576 GWh	-57 GWh	1,633 GWh	0 GWh	1,605 GWh	-28 GWh	1,658 GWh	79 GWh	25 GWh	Enough energy saved annually to power over 9,000 homes.			Enough energy saved annually to power 11,700 homes.				
Residential Natural Gas Consumed (therms)		83,402,521 thm	-1,280,799 thm	83,354,420 thm	-1,328,900 thm	84,683,320 thm	0 thm	84,044,368 thm	-638,952 thm	85,279,833 thm	1,877,312 thm	596,513 thm								
Residential Energy Consumed (Btu)		13.7 tril Btu	-313 bil Btu	13.7 tril Btu	-326 bil Btu	14.0 tril Btu	0 tril Btu	13.9 tril Btu	-159 bil Btu	14.2 tril Btu	459 bil Btu	146 bil Btu								
Commercial Energy Consumed (Btu)		7.8 tril Btu	-219 bil Btu	7.9 tril Btu	-210 bil Btu	8.1 tril Btu	0.0 tril Btu	7.8 tril Btu	-221 bil Btu	8.1 tril Btu	226 bil Btu	6 bil Btu								
Total Energy Consumed (Btu)		21.6 tril Btu	-532 bil Btu	21.6 tril Btu	-536 bil Btu	22.1 tril Btu	0.0 tril Btu	21.7 tril Btu	-381 bil Btu	22.3 tril Btu	685 bil Btu	152 bil Btu								
Residential Building Emissions (MMT)		0.76 MMT	-0.02 MMT	0.76 MMT	-0.02 MMT	0.78 MMT	0.00 MMT	0.77 MMT	-0.01 MMT	0.79 MMT	0.03 MMT	0.01 MMT								
Commercial Building Emissions (MMT)		0.45 MMT	-0.01 MMT	0.45 MMT	-0.01 MMT	0.46 MMT	0.00 MMT	0.45 MMT	-0.01 MMT	0.46 MMT	0.01 MMT	0.00 MMT								
Residential Electricity per HH (kWh)		6,583 kWh	-226 kWh	6,573 kWh	-236 kWh	6,809 kWh	0 kWh	6,693 kWh	-117 kWh	6,915 kWh	331 kWh	105 kWh								
Residential Natural Gas per HH (therms)		348 thm	-5 thm	348 thm	-6 thm	353 thm	0 thm	351 thm	-3 thm	356 thm	8 thm	2 thm								
Residential Energy Use per HH (Btu)		90.0 mil Btu	-2.2 mil Btu	90.0 mil Btu	-2.2 mil Btu	92.2 mil Btu	0.0 mil Btu	90.6 mil Btu	-1.6 mil Btu	92.8 mil Btu	2.9 mil Btu	0.6 mil Btu								
Residential Energy Cost (\$)		\$678 mil	-\$21 mil	\$677 mil	-\$22 mil	\$698 mil	\$0 mil	\$688 mil	-\$11 mil	\$708 mil	\$31 mil	\$10 mil								
Residential Energy Cost per HH (\$)		\$2,826	-\$87	\$2,822	-\$91	\$2,913	\$0	\$2,868	-\$45	\$2,954	\$128	\$41								
Water													WATER			WATER				
Water Consumed (AF)		93,261 AF	-2,988 AF	93,501 AF	-2,747 AF	96,249 AF	AF	94,912 AF	-1,337 AF	97,484 AF	4,223 AF	1,235 AF	Enough water saved annually to serve over 7,500 homes.			Enough water saved annually to serve over 10,400 homes.				
Water Cost (\$)		\$135 mil	-\$3.5 mil	\$135 mil	-\$3.6 mil	\$138 mil	\$0.0 mil	\$136 mil	-\$1.7 mil	\$140 mil	\$5.1 mil	\$1.6 mil								
Water Consumed per HH (gal)		126,747 gal	-4,061 gal	127,074 gal	-3,734 gal	130,808 gal	gal	128,991 gal	-1,817 gal	132,486 gal	5,739 gal	1,678 gal								
Residential Water Cost per HH (\$)		\$562	-\$14	\$561	-\$15	\$576	\$0	\$569	-\$7	\$583	\$21	\$7								
Water Consumed for new households only (AF)		29,127 AF	-2,988 AF	29,367 AF	-2,747 AF	32,115 AF	AF	30,778 AF	-1,337 AF	33,349 AF	4,223 AF	1,235 AF	Over 10,000 gallons saved per new household.			Nearly 15,000 gallons saved per new household.				
Water use per new HH (gal)		103,367 gal	-10,605 gal	104,221 gal	-9,750 gal	113,971 gal	gal	109,227 gal	-4,745 gal	118,353 gal	14,986 gal	4,382 gal								
Water cost for new HH (2011\$)		\$38,437,223	-\$3,453,608	\$38,306,989	-\$3,583,842	\$41,890,831	\$0	\$40,146,823	-\$1,744,008	\$43,501,350	\$5,064,127	\$1,610,519								
Water cost per new HH (2011\$)		\$419	-\$38	\$417	-\$39	\$456	\$0	\$437	-\$19	\$474	\$55	\$18								
Infrastructure (Cumulative results to 2035)													INFRASTRUCTURE COSTS			INFRASTRUCTURE COSTS				
Cumulative Infrastructure Cost (2011\$)		\$1.27 B	-\$143 M	\$1.33 B	-\$80 M	\$1.41 B	\$0.01 B	\$1.35 B	-\$63 M	\$1.38 B	\$115 M	-\$27 M	\$162 million less in local spending to build, operate, and maintain infrastructure by 2035.			\$115 million less in local spending to build, operate, and maintain infrastructure by 2035.				
Cumulative Operations & Maintenance Cost (2011\$)		\$0.30 B	-\$20 M	\$0.31 B	-\$17 M	\$0.32 B	\$0.01 B	\$0.31 B	-\$11 M	\$0.32 B	\$13 M	-\$7 M								
Cumulative Revenues (\$)		\$4.62 B	\$109 M	\$4.48 B	-\$27 M	\$4.51 B	\$0.01 B	\$4.60 B	\$90 M	\$4.34 B	-\$278 M	-\$169 M								